

### **REMARKS**

Claims 1-22 and 28-33 are currently pending in the subject application and are presently under consideration. Claims 1, 7 and 28 has been amended as shown at page 2-7 of the Reply

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

#### **I. Rejection of Claims 1-14, 21, 22 and 28 Under 35 U.S.C. §103(a)**

Claims 1-14, 21, 22 and 28 stand rejected under 35 U.S.C. §103(a) as being obvious over Release 8.0 of the Workflow Template software product (“Template”) publicly available from Template Software, Inc. in 1998 as evidenced by “Using the WFT Development Environment”, 1998 (hereinafter *UsingWFT*) and “Developing a WFT Workflow System,” 1998 (hereinafter *DevelWFT*) in view of “XML based Process Management Standard launched by Workflow management Coalition – ‘Wf-XML’,” July 7, 1999 [online], accessed 01/03/2006, Workflow Management Coalition, [URL:http://www.wfmc.org/pr/pr1999-07-07.pdf](http://www.wfmc.org/pr/pr1999-07-07.pdf), 4 pages(hereinafter referred to as *WFXML-99*). This rejection should be withdrawn for at least the following reasons. The Template(*UsingWFT* and *DevelWFT*) and *WFXML-99* documents, either alone or in combination, do not teach or suggest each and every limitation recited in the subject claims.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §706.02(j). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants' claimed subject matter relates to a system and method for modeling business workflow processes and reducing the processes to a useful programming language for use in real world applications. To this end, independent claim 1 recites: *providing a user interface to allow a user to explicitly define a dividing of the reduced business process into at least one independent transaction and at least one parent transaction, the user explicitly defines the at least one independent transaction is not interdependent with the at least one parent transaction, **the user explicitly defines the at least one parent transaction has two or more child interdependent transactions that are each different from each other and interdependent with each other, the user explicitly defines each child transaction receiving data from the at least one parent transaction that is at least partially different from data received by the other child transactions, the user explicitly defines the child transactions are children of the parent transaction, wherein at least one of the child interdependent transactions is dependent on at least one other of the child interdependent transactions for completion;** executing the at least one independent transaction independently from the at least one parent transaction to increase throughput and decrease latency of the business process, the at least one independent transaction commits upon successful execution; executing the child interdependent transactions independently from each other, **the at least one parent interdependent transaction commits after all child interdependent transactions have committed;** and transferring committed data associated with the at least one independent transaction and the at least one parent transaction to a computer component for further processing.*

Template(UsingWFT and DevelWFT) and WFXML-99, either alone or in combination, fail to teach or suggest these exemplary features of applicants' claimed subject matter. Template discloses a Workflow Design Editor (WDE) that enables one to design a workflow system at a high level. In particular, the Office Action asserts that the Template- UsingWFT and DevelWFT discloses a copy flow and a compound flow that together disclose concurrently executing interdependent child transactions. However, the cited features disclose parallel tasks, but fails to provide any discussion of interdependence between the tasks. The subject claim recites that the interdependent child transactions are dependent on each other for completion. The cited example from

Template discloses two tasks, Approve Fund and Check Inventory, which are not dependent on each other for completion. In fact, they are tasks that are completed by two separate individuals that are completely independent of each other and do not require any information from each other to complete their tasks. Therefore, the tasks are independent tasks, not interdependent, that can each complete independently of each other. The Examiner asserts that the AND junction implies that the Approve Fund and Check Inventory task which precede the AND junction box must collectively commit at the AND junction. However, the cited reference does not teach or suggest this aspect of the Examiner's assertion. In fact, Template is in fact silent regarding committing transactions. The tasks are performed by different individuals and do not require any exchange of information to complete. As such, there is no reason to believe they must commit at the AND junction box versus committing on their own independent of each other. Additionally, having various points where transactions commit as recited in the subject claims allows for error processing by rolling back a transaction(s) to earlier commit points or executing error processing routines at the commit points. Template does not discuss these concepts. Furthermore, the Office Action attempts to equate the Install Solution task as a parent task to the Approve Fund and Check Inventory tasks. However, the Install Solution task is not a parent task to these tasks. It is a subsequent task that merely waits for data to be sent from each of the Approve Fund and Check Inventory tasks before it begins execution. The subject claim discloses a user explicitly defining that a parent transaction has two or more interdependent child transactions and the parent task commits upon the last child transaction committing. The cited reference is silent regarding a user explicitly defining parent-child relationships between tasks to form groupings according to the user's specifications. The Examiner employs logic that asserts that since the Install Solution task must wait for the Approve Fund and Check Inventory tasks to provide data before starting execution that the Install Solution Task is the parent of the Approve Fund and Check Inventory tasks. By this logic, any task would be considered a parent of all of the tasks that preceded it in the workflow. For example, under this logic, the final task in the workflow would be considered a parent of all of the tasks in the workflow, since it must wait to execute until all of the predecessor tasks in the workflow complete. There is no basis or precedence in business workflow

processing for the Examiner's interpretation using this logic for defining a parent-child relationship. Furthermore, by the Examiner's logic, a user would not be able to explicitly define parent-child relationships for tasks. It would become a function of the workflow process and not under the explicit control of the user. A workflow by its very nature is a series of tasks that are execute in a flow task after task. Template fails to discuss the concept of a parent task that is made up of child tasks, as well as, a parent task that commits separately from its child tasks. By providing flexible transaction grouping and commit points, the subject claims allows for more robust data reporting and error processing capabilities that are not contemplated in the cited references. Moreover, the Examiner contends that Template-UsingWFT provides a copy flow facility that divides a reduced business process into at least one independent transaction and at least one parent interdependent transaction. While the copy flow facility appears to provide for dividing a business process into transactions, it is submitted that the cited document, and specifically, the copy flow facility, does not teach or suggest sending disparate work items to the destination tasks as taught in the subject claims. Rather the cited document specifically states "[a] copy flow is a single flow that splits into two or more flows. ... An exact copy of the work item or work item set is sent to each destination task." (See page 3-20). The facility is incapable of dividing the parent transaction into one or more different child interdependent transactions each receiving different data. As evidenced by the above cited passage, the cited art sends the same data from the parent transaction to each child interdependent transaction. Template is silent regarding divided workflows to transactions that are not receiving identical work items. The Office Action attempts to introduce the manager's name and approval date as evidence of receiving disparate data in the work items. However, this data is not part of the received work item of the Approve Requisition task. It is instead part of the work item that is sent out of the Approve Requisition task. The claimed subject matter in contrast is capable of dividing a reduced business transaction into a plurality of independent transactions and one or more parent transactions wherein the one or more parent transactions can comprise a plurality of differing child interdependent transactions that each receives data that is different from data received by the each of the other child interdependent transactions.

Furthermore, independent claim 7 recites *a user interface component; and a plurality of model components accessible through the user interface component, the plurality of model components allows a user to create a model of a business process and reduce the model via the scheduling programming language, the plurality of model components comprises a distinguishing model component that distinguishes between autonomous business operations and interdependent business operations, the autonomous business operations are not dependent on each other for completion and are concurrent with respect to each other, **the interdependent business operations are dependent on each other for completion and are concurrent with respect to each other, the interdependent business operations being non-identical and each receiving data from a preceding operation that is at least partially different from each other.*** As discussed above, Template fails to disclose the concept of interdependent business operations that are dependent on each other for completion and are concurrent. The AND junction, contrary to assertions in the Office Action, does not imply any interdependence between concurrent operations or that the operations must commit dependent upon each other. In addition, the cited reference does not disclose a predecessor operation that sends different data to concurrent interdependent subsequent operations.

Additionally, independent claim 28 recites *means for distinguishing between synchronization of autonomous operations from interdependent operations, the autonomous operations are not dependent on each other for completion and are concurrent with respect to each other, **the interdependent operations are dependent on each other for completion and are concurrent with respect to each other,** the autonomous operations and the interdependent operations are represented in the scheduling programming language, the scheduling programming language written in XML, **the interdependent operations-each receive data from a preceding operation that is at least partially dissimilar with respect to data received by each interdependent operation;** means for expressing synchronization constraints on completion of autonomous operations; and means for allowing association of transaction operations and groups of business operations.* Template fails to teach or suggest interdependent operations that are concurrent and dependent on each other for completion, and also fails to teach concurrent interdependent operations that receive differing data from a preceding

operation as noted *supra*.

Moreover the Examiner offers WFXML-99 to make up for the acknowledged deficiency that Template does not teach or suggest reducing a business process to XML code of a scheduling programming language. However, WFXML-99 does not cure the elucidated deficiency with respect to Template in regards to independent claims 1, 7 and 28 as discussed above concerning the novel feature, *child interdependent transactions that are each different from each other and interdependent with each other, each child transaction receiving data that is at least partially different from data received by the other child transactions, the child transactions are children of the parent transaction, the child interdependent transaction are dependent on each other for completion; ... executing the child interdependent transactions concurrently, the at least one parent interdependent transaction commits after all child interdependent transaction have committed.* WFXML-99 provides a draft specification relating to the provision of XML-based exchanges between workflow systems. The cited reference is silent regarding the novel features of the subject claims as discussed *supra*.

In view of at least the foregoing, applicant's representative respectfully submits that Template(UsingWFT and DevelWFT) and WFXML-99, alone or in combination, fail to teach or suggest all limitations of applicant's invention as recited in independent claims 1, 7 and 28 (and claims 1-6, 8-14, 21 and 22 that respectfully depend there from), and thus fails to make obvious the subject claimed invention. Accordingly, this rejection should be withdrawn.

## **II. Rejection of Claims 15-20 and 29-33 Under 35 U.S.C. §103(a)**

Claims 15-20 and 29-33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Template in view of WFXML-99, as applied to claims 1 and 12 above, and further in view of Chen *et al.* (US 5,940,839). This rejection should be withdrawn for at least the following reasons. Claims 15-20 and 29-33 depend from independent claims 7 and 28 respectively, and Chen *et al.* does not remedy the aforementioned deficiencies with respect to the Template(UsingWFT and DevelWFT) and WFXML-99 and the respective independent claims. Chen *et al.* relates to systems and methods for recovering from failures in transactions in nested transactional structures. The cited

document, however does not teach or suggest child interdependent transactions that are each different from each other and dependent on each other for completion, wherein each child transaction receives data that is at least partially different from data received by the other child transactions, or that the parent transaction commits when a last child interdependent transaction commits. Accordingly, this rejection should be withdrawn.

### **CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP101US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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